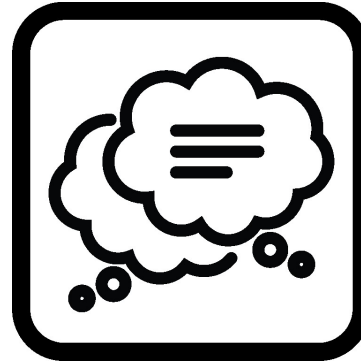
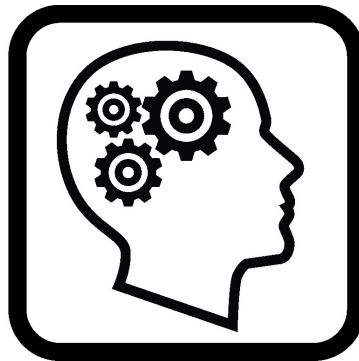




Bolstering Traffic Safety Efforts to Address Aggressive Driving

Agenda

- An overview of aggressive driving
- Ways to bolster existing traffic safety efforts to reduce aggressive driving



What is aggressive driving?

“Any unsafe driving behavior that is performed deliberately, with ill intention or disregard for safety, and impacts others.”¹

1. Finley, K., Hanson, B., Otto, J., & Green, K. (2024). Understanding Aggressive Driving and Ways to Reduce It—Phase 1 | Montana Department of Transportation (MDT). <https://www.mdt.mt.gov/research/projects/trafficsafety-ad.aspx>

Aggressive driving behaviors include actions like:

- cutting off another vehicle and braking hard
- tailgating a slower vehicle
- ignoring the right-of-way to “beat” another vehicle
- responding to other drivers with rude gestures or excessive honking

Why is addressing aggressive driving important?

Traffic crashes are a major public health concern in the U.S.

- In 2022, 42,795 people in the U.S. lost their lives in traffic crashes.¹
- While there are many causes that contribute to traffic crashes, aggressive driving is considered a leading cause, with evidence suggesting aggressive driving is a cause in approximately 56% of fatal crashes.²
- Aggressive driving is considered a common behavior among drivers.
- In a recent self-reported aggressive driving behavior survey, approximately 80% of drivers reported expressing anger, aggression, or road rage while driving at least once in the past 30 days.³

1. AAA Foundation for Traffic Safety. (2022). *2021 Traffic Safety Culture Index*. <https://aaafoundation.org/wp-content/uploads/2022/11/2021-TSCI-Full-Report.pdf>

2. AAA. (2013). *Road Rage: How to Avoid Aggressive Driving*. <https://exchange.aaa.com/wp-content/uploads/2013/06/Road-Rage-Brochure.pdf>

3. AAA. (2022). *Aggressive Driving – AAA Exchange*. Aggressive Driving. <https://exchange.aaa.com/safety/driving-advice/aggressive-driving/>

Aggressive Driving Survey

- 841 adult drivers completed the survey
- Participants were from 49 states (all except Vermont and the District of Columbia)
- Demographics of the sample approximate the U.S. population by age, gender, race, ethnicity, and state of residence



About the Survey

A survey of adult U.S. drivers was conducted in the summer of 2023. More detailed information about the survey methodology and results can be found in the *Understanding Aggressive Driving and Ways to Reduce It – Final Report*. The report can be found at: <https://www.mdt.mt.gov/research/projects/trafficsafety.shtml>

Ways to Bolster Existing Traffic Safety Efforts to Reduce Aggressive Driving



- Growing Prosocial Driving



- Using Strategies that Support Cognitive Reappraisal and Adaptive Responses



- Challenging Misperceptions



- Increasing Perceived Disapproval through Bystander Engagement

Growing Prosocial Driving



Prosocial driving is *“a pattern of safe driving behaviors that potentially protect the well-being of passengers, other drivers, and pedestrians, and that promotes effective cooperation with others in the driving environment.”*¹

1. Harris, P. B., Houston, J. M., Vazquez, J. A., Smither, J. A., Harms, A., Dahlke, J. A., & Sachau, D. A. (2014). The Prosocial and Aggressive Driving Inventory (PADI): A self-report measure of safe and unsafe driving behaviors. *Accident Analysis & Prevention*, 72(Supplement C), 1–8. <https://doi.org/10.1016/j.aap.2014.05.023>

Prosocial driving includes a wide range of behaviors¹ like:

Using mirrors and checking blind spots when changing lanes

Using turn signals (blinkers) to notify other drivers of an intention to turn

Braking slowly enough to alert drivers behind you

Decreasing speed to accommodate poor road conditions

Yielding when the right of way belongs to other drivers

Maintaining a safe distance when following other vehicles

Paying attention to traffic and surroundings while driving

Driving with extra care around pedestrians

1. Harris, P. B., Houston, J. M., Vazquez, J. A., Smither, J. A., Harms, A., Dahlke, J. A., & Sachau, D. A. (2014). The Prosocial and Aggressive Driving Inventory (PADI): A self-report measure of safe and unsafe driving behaviors. *Accident Analysis & Prevention*, 72(Supplement C), 1–8. <https://doi.org/10.1016/j.aap.2014.05.023>

Aggressive Driving Survey Data

The majority of participants (91.1%) reported engaging in prosocial driving behaviors often while driving.



More frequent engagement in prosocial driving behaviors was associated with less frequent aggressive driving behaviors.

The most frequent prosocial behaviors endorsed by participants included using mirrors and checking blind spots when changing lanes, using turn signals, paying attention to traffic and surroundings, and driving with extra care around pedestrians.

Promoting prosocial driving may be a **potential avenue to reduce aggressive driving** as engaging in prosocial driving makes aggressive driving less likely.



Guiding Questions



What current strategies/countermeasures/campaigns promote prosocial driving behaviors?



How can your current strategies be bolstered to increase prosocial driving?



In what ways can prosocial driving behaviors be promoted?



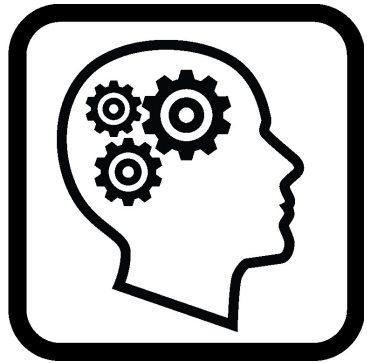
Ideas - Growing Prosocial Driving

Infuse communication strategies and traffic safety campaigns with the promotion of prosocial driving behaviors that align with the strategy or campaign being implemented.

Provide education about prosocial driving behaviors in driver education programs, driver training programs, and workplace driving safety meetings.

Connect prosocial driving to shared values and beliefs people have about safety on roadways and caring about others.

Using Strategies that Support Cognitive Reappraisal and Adaptive Responses



How a driver thinks about a situation they encounter while driving can influence their response and the ultimate outcome. A driver's cognitive appraisal of a situation is likely to influence their behavior.^{1 2}

1. Ge Y, Zhang Q, Zhang J, et al. Validation of the Driver's Angry Thoughts Questionnaire (DATQ) in a Chinese sample. *Accident Analysis & Prevention*. 2016;95:362-372. doi:10.1016/j.aap.2016.04.025

2. Lennon AJ, Watson B. "Teaching them a lesson?" A qualitative exploration of underlying motivations for driver aggression. *Accident Analysis & Prevention*. 2011;43(6):2200-2208. doi:10.1016/j.aap.2011.06.015

Cognitive Reappraisal

- Thinking about a situation encountered while driving in a negative way can lead to feelings of anger or frustration. In contrast, thinking about a situation in a neutral or positive way may lead to less anger or frustration about the situation.
- When drivers perceive that other drivers' behaviors are unintentional mistakes or errors, they may respond differently and with less aggression than if they think other drivers' behaviors are deliberate or malicious.¹
- Perceptions of other drivers' intentions may influence a driver's tendencies to engage in aggressive behaviors when driving.^{2 3}
- Cognitive reappraisal is about changing the way we think about a driving situation to change our response to the situation.

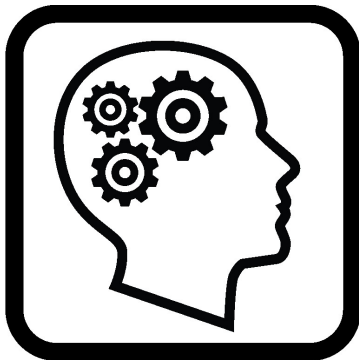
1. Lennon AJ, Watson B. "Teaching them a lesson?" A qualitative exploration of underlying motivations for driver aggression. *Accident Analysis & Prevention*. 2011;43(6):2200-2208. doi:10.1016/j.aap.2011.06.015

2. Berdoulat, E., Deninotti, J., & Vavassori, D. (2021). Typology of aggressive and transgressive drivers. *Accident Analysis & Prevention*, 162, 106404. <https://doi.org/10.1016/j.aap.2021.106404>

3. Lennon, A. J., & Watson, B. C. (2015). A matter of style? Driver attributional 'style' in accounting for the driving of others as protective or as predisposing drivers towards retaliatory aggressive driving. *Transportation Research Part F: Traffic Psychology and Behaviour*, 30, 163–172. <https://doi.org/10.1016/j.trf.2015.03.001>

Aggressive Driving Survey Data

If people can reconceptualize the behavior of other drivers as neutral or an innocent mistake rather than malicious or intentionally hostile, **they may be less likely to engage in aggressive driving actions.**



Participants reported engaging in aggressive driving more frequently if they experienced others driving aggressively more often.



Similarly, participants who perceived that others frequently drive aggressively engaged in aggressive driving more often themselves.

Adaptive Responses

Adaptive responses are constructive ways people respond to feelings of anger that focus on safe driving and coping. These responses include problem-solving, changing perspective, reframing the situation, acceptance, and using coping strategies that reduce anger.¹

1. Deffenbacher JL, Lynch RS, Oetting ER, Swaim RC. The driving anger expression inventory: a measure of how people express their anger on the road. *Behaviour Research and Therapy*. 2002;40(6):717-737. doi:10.1016/s0005-7967(01)00063-8

Examples of adaptive responses¹ include:

Paying even closer attention to being a safe driver

Thinking of positive solutions to deal with the situation

Telling yourself to ignore it

Taking deep breaths to calm down

Accepting there are frustrating situations

Telling yourself it's not worth getting mad at

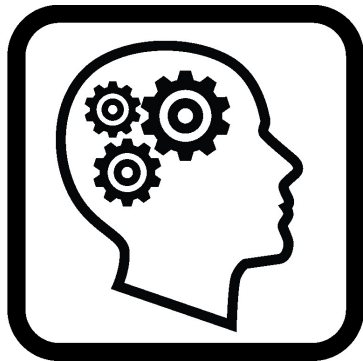
Telling yourself it's not worth getting involved

Thinking things through before responding

1. Deffenbacher JL, Lynch RS, Oetting ER, Swaim RC. The driving anger expression inventory: a measure of how people express their anger on the road. *Behaviour Research and Therapy*. 2002;40(6):717-737. doi:10.1016/s0005-7967(01)00063-8

Aggressive Driving Survey Data

Promoting adaptive responses to anger while driving **could reduce aggressive driving.**



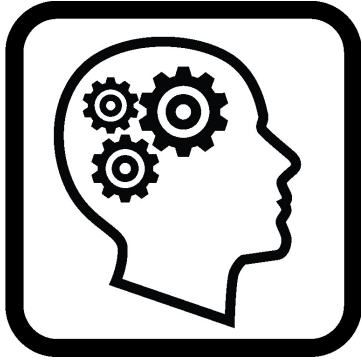
Most participants often used adaptive responses to feel angry while driving.

Greater use of adaptive responses, both in how often and in the number of different adaptive responses reported, was associated with less aggressive driving.

Most participants rarely responded aggressively to feeling angry while driving.

The most frequent positive/adaptive responses used by participants when angry included: telling yourself it's not worth getting involved, accepting there are frustrating situations, telling yourself it's not worth getting mad at.





Guiding Questions



What activities can grow drivers' skills to engage in cognitive reappraisal and adaptive responses when feeling angry?



How do current traffic safety efforts promote the use of cognitive reappraisal skills and adaptive responses?



What strategies are currently being implemented to increase traffic safety and how could those strategies be augmented to include strategies to grow drivers' skills to use cognitive reappraisal and adaptive responses?



Who in the community has shared interest in growing reappraisal and adaptive skills?



Ideas – Using Strategies that Support Cognitive Reappraisal and Adaptive Responses

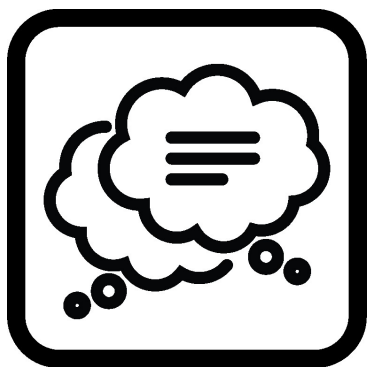
Understand existing strategies and consider ways to integrate cognitive reappraisal and adaptive response skill building into those strategies.

Provide education in driver education programs, driver training programs, and workplace driving safety meetings.

Show examples of cognitive reappraisal skills and adaptive responses in media communications.

Partner with local events to grow cognitive reappraisal skills and adaptive response skills.

Challenging Misperceptions



Beliefs influence behavior, and misperceptions may make it more likely people will engage in behaviors that are risky.¹

Thus, **to change behavior, we need to focus on changing beliefs.** Correcting misperceptions regarding the actual frequency of aggressive driving and presenting factual norms that most people do not regularly drive aggressively may reduce aggressive driving.

1. Amialchuk A, Ajilore O, Egan K. The influence of misperceptions about social norms on substance use among school-aged adolescents. *Health Economics*. 2019;28(6):736-747. doi:10.1002/hec.3878

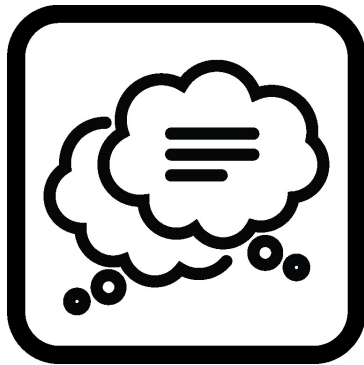
Aggressive Driving Survey Data

Drivers believe other people in their community drive aggressively more frequently than the drivers themselves report. Drivers also perceive that other drivers in their state and across the country drive aggressively even more often than other drivers in their community.

Those that believe others drive aggressively more frequently also drive aggressively more often themselves.



Challenging misperceptions could present an important opportunity to **reduce aggressive driving**.



Guiding Questions



What are opportunities to correct misperceptions about aggressive driving?



Who are stakeholders that could support efforts to challenge misperceptions about aggressive driving?



What information may directly or indirectly contribute to misperceptions about aggressive driving?



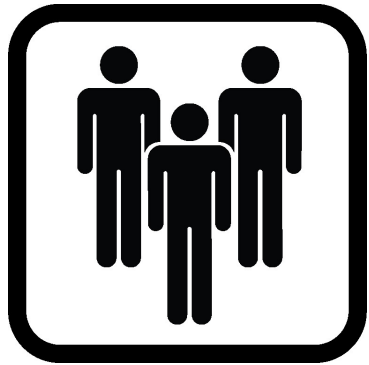
Ideas – Challenging Misperceptions

Challenge misperceptions by presenting accurate norms through messaging. Use current and accurate data to support these claims.

Engage with the public in a variety of ways to promote accurate data about aggressive driving.

Find trusted sources to deliver information.

Increasing Perceived Disapproval Through Bystander Engagement



Bystanders, especially partners, family, and close friends, can be influential in encouraging others to not drive aggressively.

Whether riding along in the vehicle or not, we can make it clear to people who are important to us that we do not support them driving aggressively and instead support prosocial driving behavior.

Aggressive Driving Survey Data

Greater perceived disapproval was associated with less frequent engagement in aggressive driving behaviors.



Participants believed their partner, significant other, or closest friend would disapprove the most of them engaging in aggressive driving actions.

Perceived disapproval is a unique opportunity for **intervention to reduce aggressive driving.**



Guiding Questions



What are opportunities to grow perceptions of disapproval about aggressive driving?



In what ways can we bolster bystander engagement skills to speak up about aggressive driving?



How can bystanders be directly engaged in promoting traffic safety, including reducing aggressive driving?



Ideas – Increasing Perceived Disapproval Through Bystander Engagement

Promote bystander engagement as an overarching strategy to address a variety of risky driving behaviors (i.e., distraction, not wearing a seat belt, driving under the influence of substances, aggressive driving, etc.).

Show examples of bystander engagement in media communications.

Incorporate the role of bystanders in drivers' education and prevention strategies for young people.

Empower passengers to play an active role in traffic safety and increase awareness among drivers and passengers alike that traffic safety and reducing aggressive driving is a shared responsibility.

Conclusion

- **Bolstering current traffic safety efforts to address aggressive driving can help traffic safety practitioners maximize resources and foster engagement.**
- Growing prosocial driving, using strategies that support cognitive reappraisal and adaptive responses, challenging misperceptions, and increasing perceived disapproval through bystander engagement can be incorporated into existing efforts to address aggressive driving.

Bolstering Traffic Safety Efforts to Address Aggressive Driving

Project: *Understanding Aggressive Driving and Ways to Reduce It – Phase 1*

Montana Department of Transportation
in cooperation with the U.S. Department of
Transportation Federal Highway Administration



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